Railhead Operations Training Guide

Railhead Operations

Loading

Part 2

Blocking and Tie down of common military vehicles and equipment

Self Propelled Wheeled Vehicles up to 6 Metric Tons (MT)

Method 1

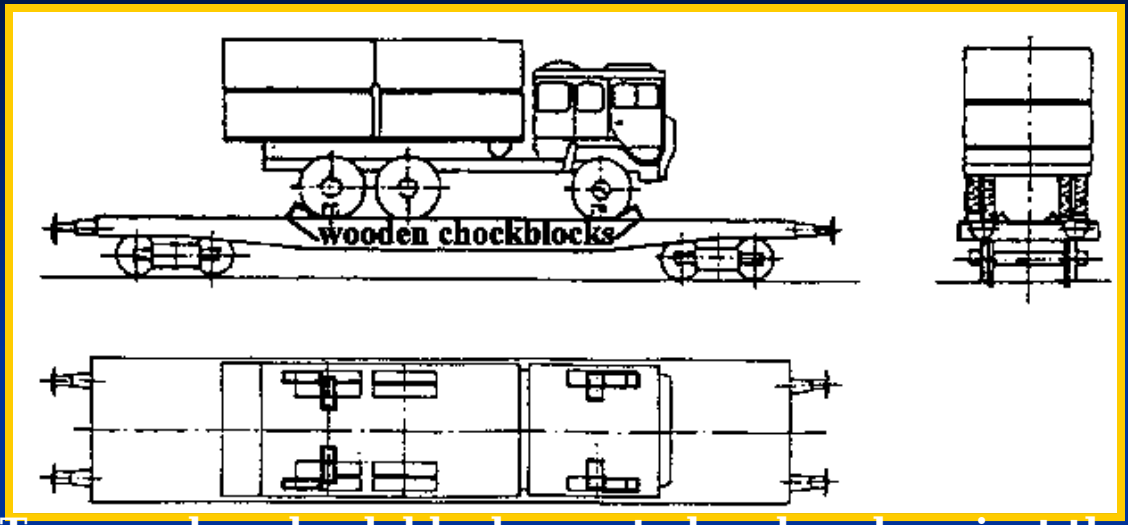
Longitudinal and Transverse Securement
4 tiedown assemblies
or 4 reusable polyester straps
or 4 chains VSK

Two tie downs with steel chains, wire ropes, or polyester straps are to be attached at both ends of the wheeled vehicle. The tie downs will be applied crosswise to the vehicle and transverse to the direction of travel and secured to the railcars.

They should be moderately tensioned.

After final positioning, the vehicle will, if possible, be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

Self Propelled Wheeled Vehicles up to 6 Metric Tons (MT)



Method 2

Longitudinal Securement	Transverse Securement
4 wooden chock blocks (Type 1)	4 wooden chock blocks (Type 2)

Two wooden chock blocks are to be placed against the front wheels and 2 wooden chock blocks against the rear wheels in such a manner that the wheeled vehicle rests between the chock blocks as if in a cradle mounting.

Twin and multi axle assemblies will have chocks placed only at the rear of the assembly trailing wheel. Only one wheel needs to be chocked on twin-wheeled assemblies.

Wooden chock blocks for the transverse securement are to be placed against the outside or inside of the front wheels and against the outside or inside of the rear wheels.

After final positioning, the vehicle will be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

If the vehicle cannot be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic), Method 1 must be used.

Self Propelled Wheeled Vehicles 6-10 MT

Method 1

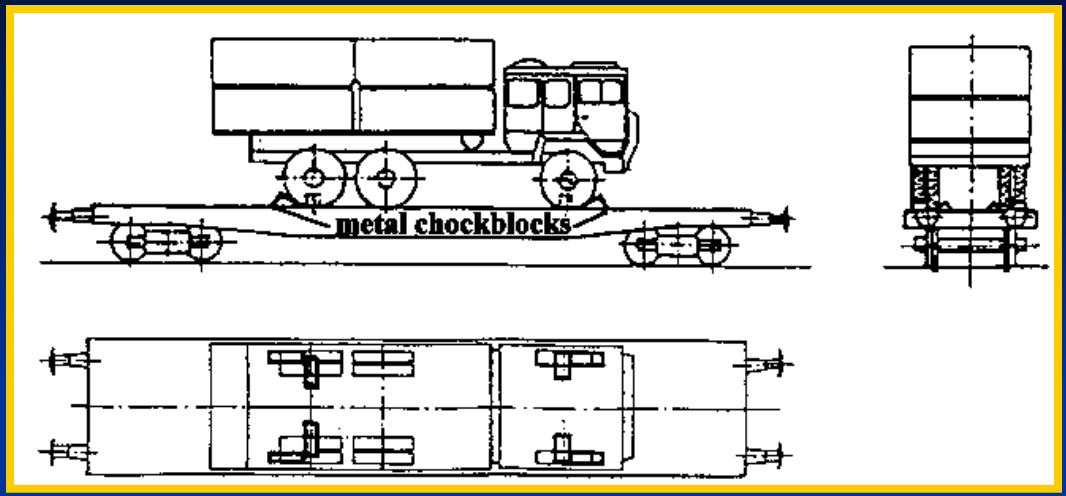
Longitudinal and Transverse Securement
4 tiedown assemblies
or 4 reusable polyester straps
or 4 chains VSK

Two tie downs with steel chains, wire ropes, or polyester straps are to be attached at both ends of the wheeled vehicle. The tie downs will be applied crosswise to the vehicle and transverse to the direction of travel and secured to the railcars.

They should be moderately tensioned.

After final positioning, the vehicle will, if possible, be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

Self Propelled Wheeled Vehicles 6-10 MT



Method 2

Longitudinal Securement	Transverse Securement
4 metal chock blocks	4 wooden chock blocks (Type 2)
	or 4 Lateral Securing Devices

Two metal chock blocks are to be placed against the front wheels and two metal chock blocks against the rear wheels in such a manner that the wheeled vehicle rests between the chock blocks as if in a cradle mounting.

Twin and multi axle assemblies will have chocks placed only at the rear of the assembly trailing wheel. Only one wheel needs to be chocked on twin-wheeled assemblies.

Wooden chock blocks or Lateral Securing Devices for the transverse securement are to be placed against the outside or inside of the front wheels and against the outside or inside of the rear wheels.

After final positioning, the vehicle will be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

If the vehicle cannot be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic), Method 1 must be used.

Self Propelled Wheeled Vehicles heavier than 10 MT

Method 1

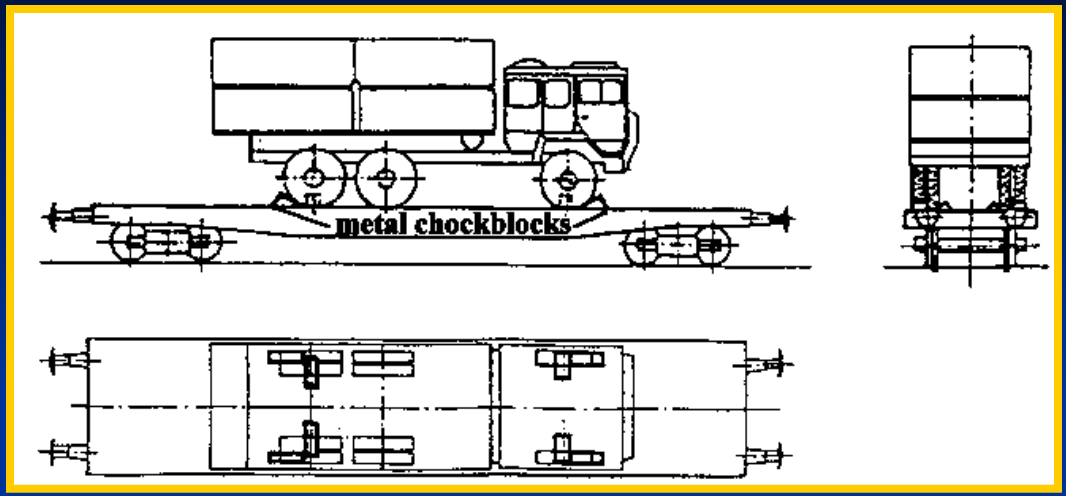
Longitudinal and Transverse Securement
4 tiedown assemblies
or 4 reusable polyester straps
or 4 chains VSK

Two tie downs with steel chains, wire ropes, or polyester straps are to be attached at both ends of the wheeled vehicle. The tie downs will be applied crosswise to the vehicle and transverse to the direction of travel and secured to the railcars.

They should be moderately tensioned.

After final positioning, the vehicle will, if possible, be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

Self Propelled Wheeled Vehicles heavier than 10 MT



Method 2

Longitudinal Securement	Transverse Securement
4 metal chock blocks	4 wooden chock blocks (Type 2)
	or 4 Lateral Securing Devices

Two metal chock blocks are to be placed against the front wheels and two metal chock blocks against the rear wheels in such a manner that the wheeled vehicle rests between the chock blocks as if in a cradle mounting.

Twin and multi axle assemblies will have chocks placed only at the rear of the assembly trailing wheel. Only one wheel needs to be chocked on twin-wheeled assemblies.

Wooden chock blocks or Lateral Securing Devices for the transverse securement are to be placed against the outside or inside of the front wheels and against the outside or inside of the rear wheels.

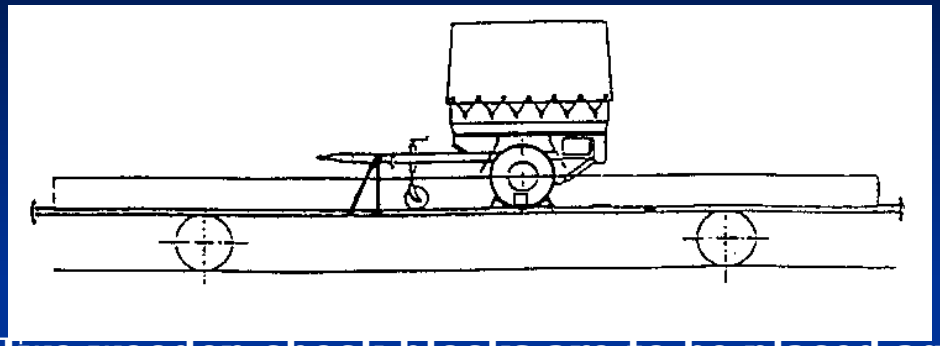
After final positioning, the vehicle will be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

If the vehicle cannot be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic), Method 1 must be used.

Loading railcar with build-in chock blocks

Loading a mobile crane

Single-axle trailers, (loaded) and twin-axle trailers, (loaded or empty) up to 6 MT, (drawbar straight)



Longitudinal Securement	Transverse Securement
4 wooden chock blocks (Type 1)	2 wooden chock blocks (Type 2)

additional for drawbar: 2 Polyester Straps or twisted wire (at least 4mm diam.) in double strands as slings ----- or 2 chains VSK ---- or 2 tie-down assemblies

Two wooden chock blocks are to be placed against the front and rear of each wheel in such a manner that the trailer rests between the chock blocks as if in a cradle mounting. Twin-axle assemblies will have two wooden chock blocks against the front of the leading wheels and two wooden chock blocks against the back of the trailing wheels.

Wooden chock blocks for the transverse securement are to be placed against the outside or inside of the wheels, in case of twin-axle assemblies against the outside or inside of the trailing wheels.

The drawbar must be secured against upward and lateral movement using the required tie down material.

After final positioning, the trailer will be immobilized by applying the handbrake.

If the trailer cannot be immobilized by applying the handbrake, the 2 wooden chock blocks for the transverse securement must be replaced by 2 tie downs with steel chains, wire ropes, or polyester straps, which are to be attached at the end of the trailer.

Single and twin-axle trailers, up to 6 MT, coupled to prime mover

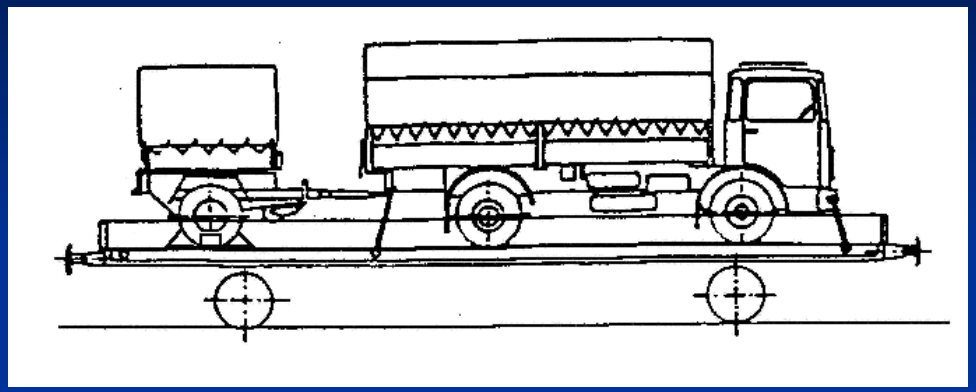
Method 1

Longitudinal and Transverse Securement
2 tiedown assemblies
or 2 polyester straps
or 2 chains VSK

Two tie downs with steel chains, wire ropes, or polyester straps are to be attached at the end of the trailer. The tie downs will be applied crosswise to the vehicle and transverse to the direction of travel and secured to the railcars.

They should be moderately tensioned.

Single and twin-axle trailers, up to 6 MT, coupled to prime mover



Method 2

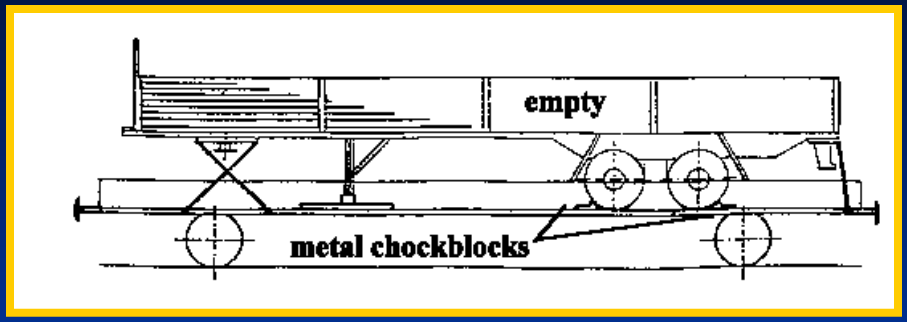
Longitudinal Securement	Transverse Securement
4 wooden chock blocks (Type 1)	2 wooden chock blocks (Type 2)

Wooden chock blocks are to be placed against the front and rear of each wheel in such a manner that the trailer rests between the chock blocks as if in a cradle mounting.

Twin-axle assemblies will have two wooden chock blocks against the front of the leading wheels and two wooden chock blocks against the back of the trailing wheels.

Wooden chock blocks for the transverse securement are to be placed against the outside or inside of the wheels, in case of twin-axle assemblies against the outside or inside of the trailing wheels.

Semi trailers, heavier than 6 MT, empty



Longitudinal Securement	Transverse Securement
4 metal chock blocks	6 tiedown assemblies
	or 6 reusable polyester straps
	or 6 chains VSK

in addition: 4ea wooden 4 by 4 at landing legs

Two metal chock blocks are to be placed against the front wheels and two against the rear wheels in such a manner that the trailer rests between the chock blocks as if in a cradle mounting. Twin-axle assemblies will have chocks placed only at the front of the assembly leading wheels and rear of the assembly trailing wheels. Only one wheel needs to be chocked on twin-wheeled assemblies. A prime mover must be used to position the trailer on the railcar to ensure that steel spikes are forced into the wooden railcar floor.

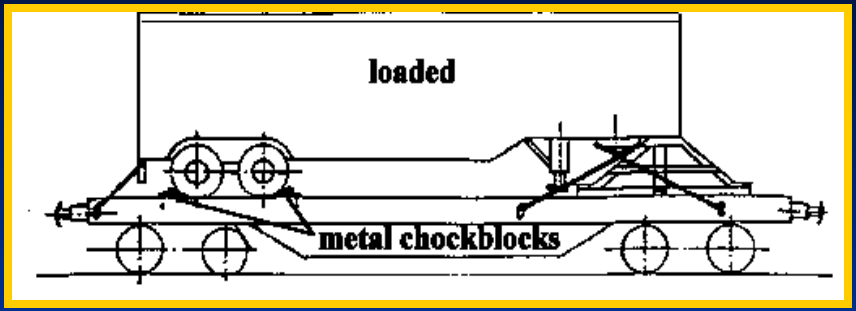
Two tie downs with steel chains, wire ropes, or polyester straps are to be attached at the end of the trailer.

Four tie downs with steel chains, wire ropes, or polyester straps are to be attached in the area of the bearing plate.

The tie downs will be applied crosswise to the vehicle and transverse to the direction of travel and secured to the railcars. They should be moderately tensioned.

The wooden 4 by 4s will be placed against each side of the base plates or rollers of the landing legs.

Semi trailers, heavier than 6 MT, loaded



Longitudinal Securement	Transverse Securement
4 metal chock blocks	6 tiedown assemblies
	or 6 reusable polyester straps
	or 6 chains VSK

in addition: 1 Stanchion

Two metal chock blocks are to be placed against the front wheels and two against the rear wheels in such a manner that the trailer rests between the chock blocks as if in a cradle mounting. Twin-axle assemblies will have chocks placed only at the front of the assembly leading wheels and rear of the assembly trailing wheels. Only one wheel needs to be chocked on twin-wheeled assemblies.

A prime mover must be used to position the trailer on the railcar to ensure that steel spikes are forced into the wooden railcar floor.

Two tie downs with steel chains, wire ropes, or polyester straps are to be attached at the end of the trailer.

Four tie downs with steel chains, wire ropes, or polyester straps are to be attached in the area of the bearing plate.

The tie downs will be applied crosswise to the vehicle and transverse to the direction of travel and secured to the railcars. They should be moderately tensioned.

The Stanchion will be placed under the bearing plate prior to relieving the landing legs.

Loading a tractor/trailer

1 **Drive tractor/trailer on railcar.**

2 **Lower landing legs, disconnect and block trailer.**

Move tractor and block/tie down.

3 **Put stanchion under the trailer. Raise landing legs so that the trailer rest on the stanchion.**

Loading a tractor/trailer

4-6 Tie down trailer to railcar.

Sling loading of a trailer

Tracked vehicles, 6-60 MT

Method 1

Longitudinal and Transverse Securement
4 tiedown assemblies
or 4 polyester straps
or 4 chains VSK

The tie downs will be applied crosswise to the tracked vehicle and transverse to the direction of travel and secured to the railcars. They should be moderately tensioned.

After final positioning, the vehicle will be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

If the vehicle cannot be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic), additional 4 metal chock blocks must be applied for the longitudinal securement.

Tracked vehicles, 6-60 MT

Method 2

Longitudinal Securement	Transverse Securement
4 metal chock blocks	4ea wooden 4 by 4
	or 4 Lateral Securing Devices

Metal chock blocks are to be placed against the front and rear of each track in such a manner that the tracked vehicle rests between the chock blocks as if in a cradle mounting.

The wooden 4 by 4s or Lateral Securing Devices must be positioned against the inside or outside flank in the area of the front and rear road wheels of the tracked vehicle.

After final positioning, the vehicle will be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic).

If the vehicle cannot be immobilized by applying the handbrake and placing the transmission in first gear (manual) or park (automatic), the wooden 4 by 4s or Lateral Securing Devices must be replaced by 4 tie downs

Loading tracked vehicles

1 **Position front metal chock blocks.**

2 **Move tracked vehicle forward (the vehicle's weight forces the spikes of the metal chock into the wooden railcar surface.**

3 **Position rear lateral chock blocks.**

Loading tracked vehicles

4 **Position rear metal chock blocks.**

5 **Back up tracked vehicle (the vehicle's weight forces the spikes of the metal chock into the wooden railcar surface.**

6 **Put in neutral and let the vehicle rock between the chock blocks into its final position.**

Container

If special container rail cars (SGJ, Lgs, Rgs, Kgs) are provided, no additional tie down is needed.

If regular rail cars are provided, loaded containers may be blocked by nailing wooden 4 by 4 against each side of the container. 2ea 4 by 4 with a length of 40" against each side of the container are sufficient.

Empty containers loaded on regular railcars must be strapped down using tie down straps or twisted wire.

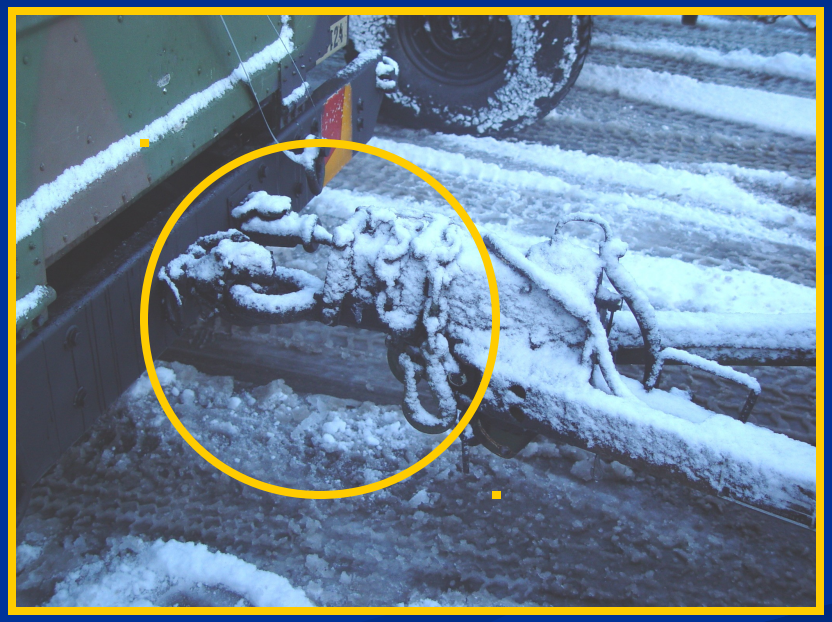
Container loading with MHE

Final Inspection

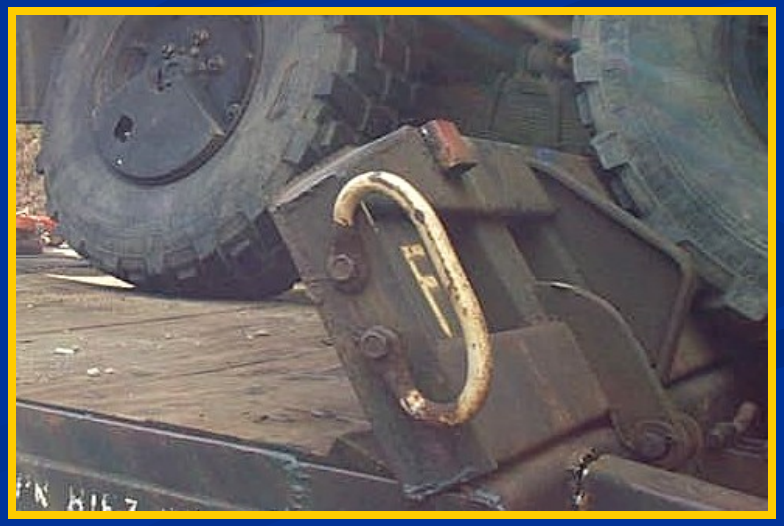
Ready to go !!!

Common mistakes

Trailer improperly hooked up to prime mover



Improperly secured vehicle



Questions ?

Comments ?